

## **Information Technology Strategy and Benefits Fiscal Year 2002**

### **STRATEGIC MANAGEMENT OF INFORMATION RESOURCES**

The Railroad Retirement Board is actively pursuing further automation and modernization of its various claims processing systems, and other administrative operations. Automation initiatives in recent years have significantly improved operations and allowed the agency to reduce staffing in key areas. Ongoing and planned projects will further increase and enhance the efficiency and effectiveness of our benefit payment, program administration, and financial management systems. Key initiatives can be grouped into three major categories, as described below.

***“One and Done”*** – Initiatives in this category include key system development projects required to achieve our primary customer service strategy of “one and done,” which represents a more streamlined, efficient, and effective process of providing service to the public. It is the ability to provide our customers with accurate, on-the-spot responses to their telephone calls, letters, applications for benefits, and other service requests. In order to achieve this level of service delivery, the RRB must have automated systems that can access and process information, and deliver accurate results to the customer or our employee at the time it is needed. This requires replacement and/or extensive revision to our current application systems. The principal initiative to be funded in this category during fiscal year 2002 is the Document Imaging and Workflow System, for which \$184,000 has been planned. This multi-year initiative is key to accomplishing our objective of paperless processing in the claims operation. In addition, by providing electronic images of original documents to the person doing the work, it is expected to enable RRB service staff to provide accurate, on-the-spot information in many cases where it would not be possible today.

***E-Government*** – Initiatives in this category are required to provide electronic services to the public, as mandated by the Government Paperwork Elimination Act of 1998 and other Federal directives. They are also required to fulfill our strategic objective of providing our customers with more flexible service delivery options. Although our agency Website currently provides a wealth of information to the public, we need to strengthen it by offering interactive, individual-specific, electronic services to our customers. To accomplish this, we began a series of initiatives during fiscal year 2000 to develop a preliminary array of Internet services on the RRB Website. Beginning in November 2000, we began offering the public a means of making on-line requests for various services, including service and compensation histories, replacement Medicare cards, annuity rate verification letters, duplicate tax statements, and a district office finder service. During fiscal year 2001, we will be adding layers of increased functionality and security to these services, to permit more fully automated and interactive responses to be delivered on-line. In addition, we plan to conduct a pilot program for three new on-line Internet applications, including compensation and service record requests, a retirement planner, and applications for employee/spouse annuities.

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During fiscal year 2002, we plan to conduct a nationwide implementation of the three new applications piloted in fiscal year 2001, as well as develop a new pilot program for five additional on-line Internet transactions. These include an application for survivor benefits, a beneficiary profile, a claim status report, a claim file on-line view for beneficiaries, and an on-line view of appeals intended for use by attorneys. A total of \$222,000 is planned for these Internet project initiatives in fiscal year 2002. We also plan to invest approximately \$150,000 in computer security and access control measures, which are required to protect the public and the agency as we develop these new Internet-based transactional processes. The security tools and measures are critically needed to ensure that all electronic commerce transactions are conducted in a safe, private, and secure manner.

***Technology Infrastructure and Administrative Support*** – These investments are required to establish a firm foundation for the technology advances we have planned, and to maintain our operational readiness. This will require replacements and upgrades to agency networks, desktop computing hardware and software, and system development tools. It also involves replacements and upgrades to existing administrative software, such as the payroll/personnel system, which requires an upgrade during fiscal year 2002. In addition, it includes funding for continued lease payments for our mainframe computer and tape handling equipment.

The specific investments in this category in fiscal year 2002 include:

- *Enterprise Architecture (\$78,000)*. In fiscal year 2001, the Board established an Office of Enterprise Architecture and named a Chief Enterprise Architect. In fiscal year 2002, we will continue development of an enterprise architecture for the agency.
- *Network /server operations (\$100,000)*. This item represents replacements and upgrades to the RRB's network servers and related equipment needed to support stable and efficient communications throughout the agency.
- *Standard workstation infrastructure (\$500,000)*. This represents replacements and upgrades to desktop computers, printers and related equipment and software needed to ensure an adequate work environment for RRB employees. With the rapid pace of changes in desktop technology, it is essential that the agency replace a portion of its desktop infrastructure each year.

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- *Conversion of the Payroll/Personnel System (\$150,000).* The RRB's payroll/personnel system is based on a commercial, off-the-shelf package that was procured during the mid-1980's and has been maintained through regular upgrades and enhancements. At this time, we are faced with a need to further revise the system in response to changes being made by the commercial provider of the software in 2003. This item represents projected costs associated with this project. The project team has been assessing various alternatives that will meet the agency's needs in this area, and will make recommendations as to the most cost-effective and strategically sound solution.
- *Lease payments (\$268,000).* This amount includes continued lease payments on the RRB's mainframe processor and automated tape storage/handling equipment, which were acquired in fiscal year 1999. It also includes the final lease payment on a library control software package procured in fiscal year 1999 in conjunction with the Year 2000 project.

Detailed information on the RRB's automation initiatives for fiscal year 2002 follows.

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**“One and Done” Initiative**

Capital Element:           **Document Imaging**

Fiscal Year 2002 Cost:   **\$ 184,000**

Agency Strategy and Benefits:

One of the RRB’s key strategic initiatives, the document imaging and workflow system, has been under development for approximately 2 years. The objectives of this initiative are to:

- improve service delivery through immediate access to claim information,
- eliminate the need for and expense of paper folders and claim materials, and
- reduce contract costs for claim folder storage and retrieval.

The concept of image processing is to allow claims staff to view certain documentary evidence and materials needed to adjudicate or process a claim through a microcomputer workstation, without having to wait to retrieve a paper claim folder from the central file storage area.

Anticipated benefits of document imaging include:

- reduced contracting costs for transporting paper claim folders,
- elimination of folder movement within the agency,
- improved customer service, and
- simultaneous access to claim folder information by multiple employees.

During fiscal years 1998 and 1999, the RRB completed the first segment of this project, which replaced an older, stand-alone imaging system currently used in the unemployment and sickness insurance processing area. Using this experience base, the RRB completed a comprehensive cost/benefit analysis during fiscal year 1999 for the expansion of the document imaging system to the RRA claims operation. The selected approach involves the use of imaging and workflow software, using a multi-phase, multi-year implementation.

The selected workflow software, which is also being used by the Social Security Administration (SSA), will allow us to automatically control, assign and track pending work assignments. We also expect to be able to establish new interfaces with SSA to better serve customers who deal with both agencies.

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**E-Government Initiative**

Capital Element:                   **RRA Internet Transaction Systems**

Fiscal Year 2002 Cost:       **\$ 175,000**

Agency Strategy and Benefits:

In order to move the RRB into our customers' homes through the Internet, it is necessary to provide secure links to our legacy databases and application programs. For example, in order to permit a railroad employee to file for his annuity over the Internet, we must provide the application process (with appropriate edits and instructional "Help" features) within an Internet browser. Further, in order to minimize data entry by the customer, the application must be linked with that person's records already maintained by the agency. To make this process user-friendly, we need to develop the application in an environment that is easy to use and graphically pleasing.

Over the next few years, the RRB plans to significantly increase the number of Internet-based offerings to the public. With new tools and training, and contractor assistance in system development, many applications currently requiring experienced RRB personnel to assist a customer can be developed and enhanced to make them self-administering.

Beginning in November 2000, the RRB began offering several new Internet services for the public, including requests for rate verification letters, replacement Medicare cards, duplicate tax statements, and service and compensation records. The RRB's Internet Services Transaction Plan outlines a number of additional initiatives to be pursued during the next few years, including on-line records of service and compensation, a retirement planner, on-line application for retirement and survivor benefits, and others.

These initiatives provide a significant new service choice for our customers, eliminate the need to have an RRB employee assist with each transaction, and allow the customer to initiate transactions when the RRB offices are closed. Funding in fiscal year 2002 is planned to provide for full nationwide implementation for several interactive transactions that are being developed in a pilot mode during fiscal year 2001, as well as to develop five new pilot systems. The new systems include an application for survivor benefits, a beneficiary profile, a claim status report, a claim file on-line view for beneficiaries, and an on-line view of appeals intended for use by attorneys.

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**E-Government Initiative**

Capital Element:                   **RUIA Internet Transaction System**

Fiscal Year 2002 Cost:       **\$ 47,000**

Agency Strategy and Benefits:

With the increasing availability and ease of use of Internet tools and technologies, State Employment Security Agencies are beginning to use the Internet to support various automated unemployment insurance applications.

Currently, the RRB mails paper applications and claims to claimants for completion. These, in turn, are mailed to local field offices where RRB employees perform data entry of the responses from the paper forms. Delays due to mail handling result in slower payment times. Data entry by staff does not add value to the extent it duplicates what the claimant has already entered on the form.

With this initiative, claimants could conduct these transactions over the Internet. Data will be integrated with the appropriate mainframe or client/server applications (through the use of “middleware”) as required. For claimants, these might include initial unemployment insurance applications as well as recurring benefit claims.

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**E-Government Initiative**

Capital Element:                   **Computer Security and Access Control Measures**

Fiscal Year 2002 Cost:       **\$ 150,000**

Agency Strategy and Benefits:

This capital element provides for funding for a variety of computer security-related tools and measures. With the planned expansion of customer service choices, including Interactive Voice Response (IVR), Internet and Extranet options, there is an increasing need to ensure the security and privacy of our customers' business transactions. To succeed, the agency must safeguard its information and release it only to authorized persons. Various methods will need to be used, including the use of unique personal identification numbers (PINs), digitized signatures, encryption techniques, and Public Key Infrastructure (PKI). We are developing our Internet initiatives in phases, as described above, which will allow for the development of reliable and appropriate levels of security for each new function being introduced. We are also closely coordinating our activities with those of the Federal community as a whole, which is developing pilot programs and guidance for new security measures on an ongoing basis.

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**Technology Infrastructure and Administrative Support Initiative**

Non-Capital Element:       **Enterprise Architecture**

Fiscal Year 2002 Cost:       **\$78,000**

Agency Strategy and Benefits:

Enterprise Architecture is a process of defining the information and technologies necessary to meet the mission of an organization. Enterprise Architecture can provide the vision for the Railroad Retirement Board's information technology environment that will accommodate emerging technologies and Federal interoperability goals. A good architecture brings important benefits:

- The structure of the existing system is clearly defined.
- The strategy for future purchases and migration strategies are clearly set out.
- Fewer and smaller interfaces between the building blocks lead to more application portability and easier software development and maintenance.
- Better defined structure and modularity lead to lower support and maintenance costs.
- Consistency across building blocks leads to improved interoperability and easier system and network management.
- The ability to view the relationships among elements of the whole information system leads to a better understanding of global issues such as security.

In December 2000, the Board established the Office of Enterprise Architecture and named a Chief Enterprise Architect. During fiscal year 2001, the RRB will:

1. Identify current information systems and interrelationships in a macro view. This phase will describe the "as is" environment.
2. Refine the target architecture to document specific technology solutions. This phase will describe the "to be" environment to produce a shared Information Technology vision.
3. Reconcile the target architecture with specified applications. This phase will provide the "gap analysis" between the "as is" and "to be" environments.
4. Develop a transition strategy and plan to determine the best method and sequencing for incremental movement from the enterprise's existing IT infrastructure to the strategic IT architecture.

In fiscal year 2002, funding in this item will provide for the continued development of the Enterprise Architecture as the architecture is further refined by applying the principles and standards against legacy systems and new systems to better realize the benefits of e-government and other initiatives.



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**Technology Infrastructure and Administrative Support Initiative**

Capital Element:                      **Network/Server Operations**

Fiscal Year 2002 Cost:              **\$ 100,000**

Agency Strategy and Benefits:

This capital item includes funds to support centralized, local and wide area network server operations throughout the agency.

A shared, intelligent backbone for network operations in the headquarters building facilitates the physical movement of microcomputer workstations and LANs and provides a secure, reliable operating environment. Referred to as the Virtual Local Area Network (VLAN), this backbone allows for flexible communications between the various local area network (LAN) servers throughout headquarters and the field offices.

The RRB, with contractor assistance, recently completed a comprehensive review of its overall network infrastructure with the objective of determining ways to stabilize and strengthen network communications. As a result of this assessment, the RRB has just completed implementation of the top three recommended improvements. These were: (1) replacement of Ethernet hubs (2) replacement of Ethernet switches, and (3) installation of fiber optic cabling throughout the headquarters facility. Our plans for fiscal year 2001 include numerous additional improvements to our network infrastructure, including establishment of a virtual private network.

In FY 2002, funding in this item will provide for continued upgrades and replacements of servers and other network components, such as routers, switches, and new or upgraded software releases, as needed to ensure reliable and secure communications on a day-to-day basis.

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**Technology Infrastructure and Administrative Support Initiative**

Capital Element:                   **Standard Workstation Infrastructure** for Headquarters and Field Service

Fiscal Year 2002 Cost:       **\$ 500,000**

Agency Strategy and Benefits:

This capital element provides the investment needed to establish and maintain a common framework to support agency-wide operations, both throughout headquarters and the field service. It reflects the RRB's strategic intention to maintain standardized equipment profiles based on job functions and business needs. To support our strategy, we have defined specific user profiles for various types of microcomputer workstations, depending on the work requirements of the user. This approach allows for more effective and efficient procurements and controls over desktop equipment.

The agency has established a standard replacement cycle for its desktop computing equipment (hardware and software) to ensure that RRB staff is adequately equipped to function effectively at their workstations. Failure to continue with the planned replacement cycle can lead to increased risks of downtime, loss of productivity, an inability to use current versions of software as required, and an inability to serve the customers in a timely manner. This capital investment represents the replacement of approximately one-quarter of the agency's desktop computers, along with upgraded software. It also covers the replacement of peripheral support equipment, such as printers, as well as special-purpose PC equipment, such as portable computers for mobile workers and training room equipment for hands-on classwork.

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**Technology Infrastructure and Administrative Support Initiative**

Non-Capital Element:       **Payroll/Personnel Conversion**

Fiscal Year 2002 Cost:       **\$ 150,000**

Agency Strategy and Benefits:

The RRB's payroll/personnel system is based on a commercial, off-the-shelf package that was procured during the mid-1980's and has been maintained through regular upgrades and enhancements. At this time, we are faced with a need to further revise the system in response to changes being made by the commercial provider of the software in 2003. This item represents projected costs associated with this project. The project team has been assessing various alternatives that will meet the agency's needs in this area, and will make recommendations as to the most cost-effective and strategically sound solution.

The principal alternatives under consideration include outsourcing of certain payroll/personnel functions to another Federal agency and conversion of the existing database platform used for the system to one of two possible new database platforms. Technical and non-technical considerations are being analyzed for each alternative at this time. Regardless of the selected solution, this item is not categorized as a capital investment because it will not result in the development or procurement of a new system. If we decide to make changes to the existing system, they would be considered in the realm of system maintenance. Outsourcing of existing functions, if chosen as a solution, is considered a contract expense, rather than a capital expense.

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**Technology Infrastructure and Administrative Support Initiative**

Capital Element:                   **Mainframe Processor**

Fiscal Year 2002 Cost:           **\$ 40,000**

**Agency Strategy and Benefits:**

In early fiscal year 1999, the RRB replaced its mainframe processor, an IBM 3090-400J acquired in 1991, with a new processor, an IBM S/390 Multiprise 2003 2C5. The specific benefits of this replacement included conversion to CMOS (Complimentary Metal-Oxide Semiconductor) technology, which does not require specialized water-cooling or air conditioning as did the previous technology. In general, CMOS processors require less space, lower energy costs, and lower maintenance costs. Space savings have been used to help consolidate other computer equipment (such as LAN servers) from other floors in the headquarters building in order to facilitate coordination and more standardized administration.

We procured the replacement processor through a 3-year operating lease, with an optional buy-out in the fourth year.

In conjunction with replacing the mainframe processor, we also replaced the operating system with IBM OS/390. This mainframe operating system has supported our nationwide delivery of services as well as our suite of mainframe legacy application programs and databases. An up-to-date operating system ensures that the operating environment is current, viable, and will continue to be supported by the vendor.

We are currently researching the potential for replacing the mainframe in fiscal year 2003 with a new processor - - one that is a flexible e-business server with approximately 15 percent greater capacity than the current system. This will support the agency's plans for increasingly automated operations and new e-government functions. Anticipated benefits include reduced energy requirements, faster performance, growth options for increased capacity, and an ongoing ability to install new releases of operating system software issued after the Spring of 2001. Technical studies are ongoing during fiscal year 2001 to develop additional detailed justification for this replacement. Funds in fiscal year 2002 as shown above are for the final lease and buyout payments scheduled for the current processor.

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### **Technology Infrastructure and Administrative Support Initiative**

Capital Element: **Tape Storage**

Fiscal Year 2002 Cost: **\$ 186,000**

#### **Agency Strategy and Benefits:**

The RRB continues to rely on tape processing for much of its mainframe batch operations, as well as for various data exchanges with external organizations in the Federal, State, and private sectors. In fiscal year 1999, we replaced aging and obsolescent tape drive equipment with new robotic technology for handling and storing tapes. The new configuration involves a “virtual tape server” (VTS) as the center of an integrated tape storage management system. The new system automatically selects and changes tapes as needed, and uses significantly more dense tape cartridges.

This new technology allows for more efficient data storage and lower operating costs. It also freed up space in the data center, which is being put to better uses in consolidating and standardizing computer equipment from other areas in the agency (e.g., local area network servers). Upgrading to a more modern tape management system has provided other benefits as well, including:

- accelerating the data transfer rate from the mainframe to the tape storage units,
- significantly reducing the number of manual tape mounts,
- significantly reducing the number of tapes stored in the tape library, and
- reducing the processing time for batch jobs which require the use of magnetic tapes.

The VTS was procured through a 3-year operating lease with an optional buy-out in the fourth year. The costs for fiscal year 2002 above represent the final lease payments and planned buy-out of this equipment.

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**Technology Infrastructure and Administrative Support Initiative**

Capital Element:                      **System Development Tools**

Fiscal Year 2002 Cost:              **\$ 42,000**

Agency Strategy and Benefits:

This item represents the final lease payment in fiscal year 2002 for a library control management software product that was procured in fiscal year 1999. The product was procured in conjunction with the agency's Year 2000 (Y2K) conversion effort, to replace an older package that was not Y2K-compliant. The new product not only provided Y2K-compliance but also improved our library controls over database systems and commercial software products.

We are using this capital item to expand our PC-based capabilities in the systems development and user areas. In addition, we will be acquiring additional tools to build new systems for Internet/Intranet-based transactions and other advanced capabilities to better serve our customers and streamline our work processes.